Medium - 7. Some cones on all trees.

- 8. Many cones on some trees--some cones on all trees.

Heavy - 9. Many cones on 75 percent of the trees--some cones on all trees.

-10. Many cones on all trees.

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TECHNICAL NOTE

FOREST SERVICE
U. S. DEPARTMENT OF AGRICULTURE

NORTHERN FOREST EXPERIMENT STATION
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CONE CROPS IN COASTAL ALASKA--1960 and 1961

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The 1960 Sitka spruce (Picea sitchensis (Bong.) Carr.) cone crops, reported by National Forest Ranger Districts (fig. 1) were very light over most of southeast Alaska. A "light" crop was reported on Montague Island in the Cordova District, and "medium" to "heavy" crops were reported from three locations on Afognak Island. Crop size decreased southward, with complete failures or near failures reported from the Craig, Kasaan, and Ketchikan Districts.

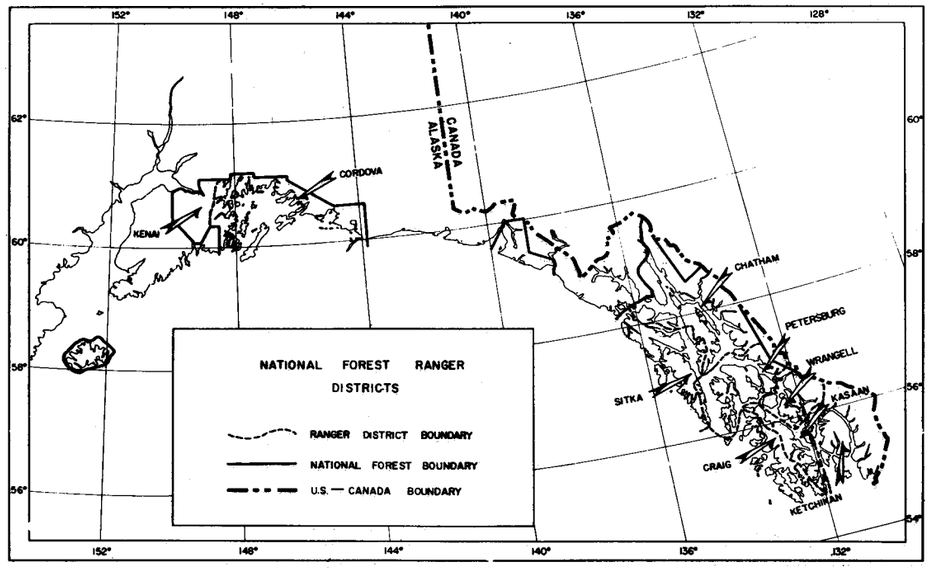

Figure 1.-- National Forest Ranger Districts in coastal Alaska.

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Western hemlock (Tsuga heterophylla (Raf.) Sarg.) cone crops were reported as "very light" to "none" throughout southeast Alaska.

Western redcedar (Thuja plicata Donn) cone crops in the Kasaan and Ketchikan Districts were virtual failures.

A "heavy" crop of white spruce (Picea glauca (Moench) Voss) was found near Kenai Lake in 1960.

A report for Alaska-cedar (Chamaecyparis nootkatensis (D. Don) Spach) indicated a "medium" crop of both one- and two-year cones near Petersburg. The only 1960 report from the Sitka District showed a crop failure.

The 1961 Sitka spruce and western hemlock cone crops ranged from "light" to "none." The crop appeared to be generally a failure throughout southeast Alaska. Three reports from the Cordova District reported a "light" crop on Montague Island and near Sheridan Glacier.

A virtual failure of the 1961 western redcedar cone crop was reported from the Kasaan District. Reports from other Districts were lacking.

The most recent abundant crop of western hemlock, Sitka spruce, and western redcedar was in 1959, when "medium" to "heavy" crops occurred on several Ranger Districts.[1/]

Ratings for 1960 and 1961 by Ranger Districts and for coastal Alaska are shown in table 1.

Annual cone crop ratings for coastal Alaska were started in 1956. Cone crop ratings are made according to the following system devised by the Oregon State Board of Forestry:

None	- 1.	No cones on any trees.
	- 2.	Few cones on occasional trees.
V. light	- 3.	Few cones on 25 percent of the trees.
	- 4.	Few cones on 25 percent of the trees--many cones on occasional trees.
Light	- 5.	Few cones on 75 percent of the trees.
	- 6.	Many cones on some trees--few cones on 75 percent of the trees.

1/ Harris, A. S. 1959 cone crop report for Alaska tree species. U. S. Forest Service. Alaska Forest Research Center Technical Note No. 50, 2 pp. 1960.

Table 1.--Cone crop ratings by Ranger Districts and for coastal Alaska for 1960 and 1961

Species	Ranger Districts							Coastal Alaska	
	Kenai	Cordova	Chatham	Sitka	Petersburg	Wrangell	Craig	Kasaan	Ketchikan	Rating	No. of observations
1960											
White spruce	9	-	-	-	-	-	-	-	-	9	3
Sitka spruce	-	7	4	1/8	5	-	2	2	2	4	24
Western hemlock	-	-	3	4	4	-	4	2	1	3	17
Western redcedar	-	-	-	-	-	-	-	1	1	1	4
Alaska-cedar	-	-	-	2	2/8	-	-	-	-	-	2
Lodgepole pine	-	-	-	-	7	-	-	-	-	-	1
1961											
White spruce	2	-	-	-	-	-	-	-	-	2	1
Sitka spruce	-	5	2	2	3	2	2	1	2	2	88
Western hemlock	-	5	4	2	2	2	2	2	2	2	87
Western redcedar	-	-	-	-	-	-	-	2	-	2	12

1/ Based on one observation in a predominantly western hemlock stand with few spruce present.
2/ Both one- and two-year cones.